

Abstract

A spray gun includes a handle portion and an extension portion. A nozzle is connected with an outer end of the extension portion. An electrode assembly is disposed in the extension portion to establish an electrical field to electrostatically charge particles of coating material. A coating material flow control member and a purge air flow control member are disposed on the handle portion. Operation of either one of the two flow control members actuates a membrane switch assembly. Operation of the purge air flow control member directs the flow of air to the coating material passage in the extension portion to remove excess coating material from the passage and from the nozzle. Different size hand grips may be mounted on the handle portion of the spray gun to accommodate operators having hands of different sizes. Passages for air and electrical conductors are formed in the handle and extension portions of the spray gun by cooperation between outer side walls of the handle and extension portions and inner wall structures. A voltage multiplier unit in the extension portion of the spray gun is exposed to a flow of air to transfer heat from the voltage multiplier.